

In re WILLIAMS ET AL., Application No. 10/051,728  
Amendment A

**REMARKS**

The Office action dated December 19, 2005, and the references cited have been fully considered. In response, please enter the enclosed amendments, and consider the following remarks. Reconsideration and/or further prosecution of the application is respectfully requested. No new matter is added herein.

First, Applicants have taken this opportunity to cleanup the definition of computer-readable medium in the specification to ensure that it is defined consistent with common usage and the MPEP. No new matter is added in this paper.

Next, Applicants respectfully traverse all claim rejections as the prior art of record neither teaches nor suggests all the claim limitations, including, but not limited to the recited limitations of the random index / random index generator. Applicants respectfully make a "Demand for Evidence" to show that Giacopelli et al. teaches a random index and any variant thereof recited in the claims. Giacopelli et al.'s / Bellcore's Sunshine Packet Switch does not allocate packets based on a randomly generated index. The non-Beauregard style claims are rejected under 35 USC § 102(b) as being unpatentable over Giacopelli et al, US Patent 4,893,304. The packet switch taught by Giacopelli et al. will switch a same set of packets in exactly the same manner for each time the packets are input into the switch - there is no randomness. The Batcher switch merely sorts packets because this avoids the blocking/low occupancy problems of Banyan switches when provided packets in non-sorted order. Additionally, the switch and service priorities are not set according to their service level, and there is no teaching that these are random values. In fact, Applicants submit that if they were random values, then the switch would not be usable for its intended purpose of being able to forward packets belonging to higher-priority packet streams ahead of non-higher priority packet streams.

As this application has been pending for an exceeding long duration, Applicants have elected to go ahead in good faith and amend the claims to further prosecution including to

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reduce the number of the claim sets to avoid a possible restriction requirement and to update the claims based on current drafting preferences, rather than in response to any prior art of record.

First, claims 1-11, 14, and 23-30 are canceled herein.

Next, in regards to the pending claim set of independent claim 12, and its dependent claims of 13, 15, 16-18, and 31, Applicants have amended claim 12 to clean up some language due to current drafting preferences, rather than narrowing the scope of the claim. Support for such amendments is provided at least by FIG. 5 and its corresponding discussion on pages 11-13 in the original application. One embodiment, as illustrated in FIG. 5, for each forwarding cycle: generates a random index (process block 504), then attempts to map and forward packets to paths first from the recirculation buffer (process blocks 514-526), and then subsequently using input packets to fill remaining paths that have not been mapped with packets (process blocks 530-550). Dependent claims 13 and 15 are amended to match the recited limitations of claim(s) from which they depend, with support provided at least by the same citation to the originally filed application. Dependent claim 31 is added herein with support provided at least by process block 524 of FIG. 5, and its corresponding discussion on page 12 of the originally filed application.

Claim 19, which was originally a dependent Beauregard style claim depending from independent claim 12, is re-written in independent form, with support provided by original claims 12 and 19, and at least by the same citation to the originally filed specification. Dependent claim 31 (off claim 19) is added herein with support provided at least by process block 524 of FIG. 5, and its corresponding discussion on page 12 of the originally filed application. Claim 33 is added herein to basically re-write appended independent claim 12 into means + function format, with support provided at least by FIG. 5 and its corresponding discussion on pages 11-13 in the original application.

Applicants respectfully submit that independent claim 12 and its dependent claims 13, 15, 16-18 and 31, independent claim 19 and its dependent claim 32, and independent claim 33 are allowable over the prior art for at least the reasons that the prior art of record neither teaches

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nor suggests generating a random index (or causing or means for such) nor the two stage process of allocating packets to the plurality of paths in the manner disclosed based on the random index, nor first attempting to fill the paths using packets from the recirculation buffer then the input packets. For at least these reasons, Applicants respectfully request the rejections to these claims be withdrawn, and all of these claims be allowed.

Next, in regards to the claim set of independent claim 20, and its dependent claims of 21 and 22: Applicants again have amended the claims to conform to current drafting stylistic practice, rather than in response to prior art. Support is provided at least by FIG. 5 and its corresponding discussion on pages 11-13 in the original application (including the current path identified by PATHCNT and the random index). Dependent claims 21 and 22 are amended to conform with the same language used in their parent claims, and claim 22 is amended to include a reference to a data structure in the storage mechanism, with support provided by the previous citation to the original application as well as data structure 300 of FIG. 3 which could be used in one embodiment of that recited by claim 22.

Applicants respectfully submit that claims 20-22 are allowable as the prior art of record neither teaches nor suggests all the recited limitations/elements, including, but not limited to a random index generator. For at least these reasons, Applicants respectfully request the rejections of claims 20-22 be withdrawn and claims 20-22 be allowed.

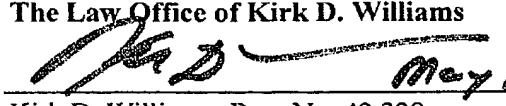
For at least the reasons presented herein, all claims are believed to be allowable over the prior art of record, and Applicants respectfully request that the rejections of all claims be withdrawn, all pending claims be allowed, and the application be passed to issuance.

In view of the above remarks and for at least the reasons presented herein, all pending claims are believed to be allowable over the prior art of record, the application is considered in good and proper form for allowance, and the Office is respectfully requested to issue a timely Notice of allowance in this case. If, in the opinion of the Office, a telephone conference would expedite the prosecution of the subject application, the Office is invited to call the undersigned attorney.

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Applicant believes a two-month extension of time is required, and hereby petitions any extension of time required and has included herewith a credit card payment form (PTO-2038) for payment of the extension fee, and Applicant's representative hereby authorizes the Commissioner to charge/credit any additional associated fees to Deposit Account No. 501430.

Date: May 19, 2006

Respectfully submitted,  
The Law Office of Kirk D. Williams  
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